

# Notice of Allowability

Application No.

09/697,121

Examiner

Samuel P Siefke

Applicant(s)

KAWAMURA, TATSUROU

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview 2/11/04.
2. ☒ The allowed claim(s) is/are 1,3-6 and 9-12.
3. ☒ The drawings filed on 27 October 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date attached
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on February 11, 2004, Ramyar Farid requested an extension of time for 3 MONTH(S) and authorized the Director to charge Deposit Account No. 500417 the required fee of \$890.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ramyar Farid on February 11, 2004.

The application has been amended as follows:

1. (Currently amended) A method for measuring a concentration of solution comprising the steps of:

measuring ~~[[a]]~~ transmitted light intensities and ~~[[/or a]]~~ scattered light intensities of a solution to be detected containing a specific component before and after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said specific component; and

determining the concentration of said specific component in said solution to be detected on the basis of these measured values, wherein the concentration of said specific component in said solution to be detected in a low concentration region is determined from the measured values of the scattered light intensities before and after the mixing of said reagent, and the concentration of said specific component in said solution to be detected in a high concentration region is determined from the measured values of the transmitted light intensities before and after the mixing of said reagent.

2. (Canceled)

3. (Currently amended) ~~[[The]]~~ A method for measuring a concentration of solution ~~in accordance with claim 1~~ comprising the steps of:

measuring transmitted light intensities and scattered light intensities of a solution to be detected containing a specific component before and after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said specific component; and

determining the concentration of said specific component in said solution to be detected on the basis of these measured values,

~~wherein said transmitted light intensities and said scattered light intensities are measured,~~ and the measured values of the transmitted light intensities before and after the mixing of said reagent are compared with the measured values of the scattered light intensities before and after the mixing of said reagent, thereby to detect the occurrence or non-occurrence of a false measurement due to a particle suspending in said solution to be detected.

4. (Currently amended) The method for measuring a concentration of solution in accordance with claim [[2]] 1, wherein at least one of the transmitted light intensities and the scattered light intensities before and after the mixing of said reagent is measured under the same condition for a standard solution with a known concentration and said solution to be detected, and the measured values of said solution to be detected are corrected by the measured values of said standard solution to determine the concentration of said specific component in said solution to be detected

5. (Original) The method for measuring a concentration of solution in accordance with claim 4, wherein said standard solution is water not containing said specific component.

6. (Currently amended) A method for measuring a concentration of solution, comprising the steps of:

~~determining the protein concentration of said solution to be detected with said method for measuring a concentration of solution in accordance with claim 1;~~

measuring transmitted light intensities and/or scattered light intensities of the solution to be detected containing a protein before and after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said protein;

determining the concentration of said protein in said solution to be detected on the basis of these measured values;

determining a concentration of an optical active substance in said solution to be detected by measuring the optical rotation of said solution to be detected before the mixing of said reagent; and then

determining the concentration of the optical active substance other than said protein from said protein concentration and said optical rotation.

7-8. (Canceled)

9. (Currently amended) A method for measuring a concentration of solution comprising the steps of:

measuring a transmitted light intensity ~~intensities~~ and a scattered light ~~intensities~~ intensity of a solution to be detected containing a specific component after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said specific component; and

determining the concentration of said specific component in said solution to be detected on the basis of these measured values,

wherein the concentration of said specific component in said solution to be detected in a low concentration region is determined from the measured ~~[[values]]~~ value of the scattered light intensity ~~intensities~~ after the mixing of said reagent, and the concentration of said specific component in said solution to be detected in a high concentration region is determined from the measured ~~[[values]]~~ value of the transmitted light intensity ~~intensities~~ after the mixing of said reagent.

10. (Currently amended) A method for measuring a concentration of solution comprising the steps of:

measuring a transmitted light intensity ~~intensities~~ and a scattered light intensity ~~intensities~~ of a solution to be detected containing a specific component after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said specific component; and

determining the concentration of said specific component in said solution to be detected on the basis of these measured values,

wherein the measured ~~[[values]]~~ value of the transmitted light intensity ~~intensities~~ after the mixing of said reagent ~~[[are]]~~ is compared with the measured ~~[[values]]~~ value of the scattered light intensity ~~intensities~~ after the mixing of said reagent, thereby to detect the occurrence or non-occurrence of a false measurement due to a particle suspending in said solution to be detected.

11. (Currently amended) ~~[[A]]~~ The method for measuring a concentration of solution in accordance with claim 9, comprising the steps of:

~~measuring a transmitted light intensities and/or a scattered light intensities of a solution to be detected containing a specific component after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said specific component; and~~

~~determining the concentration of said specific component in said solution to be detected on the basis of these measured values,~~

wherein at least one of the transmitted light intensity intensities and the scattered light intensity intensities after the mixing of said reagent is measured under the same condition for a standard solution with a known concentration and said solution to be detected, and the measured values of said solution to be detected are corrected by the measured values of said standard solution to determine the concentration of said specific component in said solution to be detected.

12. (Currently amended) A method for measuring a concentration of solution comprising the steps of:

measuring a transmitted light intensity intensities and/or a scattered light intensity intensities of a solution to be detected containing a protein after mixing a reagent, which changes the optical characteristics of said solution to be detected attributed to said protein;

determining the concentration of said protein in said solution to be detected on the basis of these measured values;

determining a concentration of an optical active substance ~~other than said protein~~  
in said solution to be detected by measuring the optical rotation of said solution to be  
detected before the mixing of said reagent; and then

determining the concentration of the optical active substance other than said  
protein from said protein concentration and said optical rotation.



***Allowable Subject Matter***

Claims **1,3,4-6, 9-12** are allowed.

The following is an examiner's statement of reasons for allowance: Claim 1 is allowable because the prior art does not teach or fairly suggest measuring transmitted light intensities and scattered light intensities of a solution to be detected containing a specific component before and after mixing a reagent where transmitted light intensities are used to detect components of a high concentration region in a solution and the scattered light intensities are used to detect components of a low concentration region in a solution. Claim 3 is allowed because the prior art does not teach or fairly suggest comparing the before and after mixing reagent intensities of the transmitted light and the scattered light. Claim 6 and 12 are allowed because the prior art does not teach or fairly suggest determining the concentration of a solution before and after a reagent is mixed using optical rotation of said solution to be detected. Claim 10 is allowed because the prior art does not teach or fairly suggest detecting the occurrence or nonoccurrence of a false measurement due to a particle suspending in a solution to be detected. Claim 11 is allowed because the prior art does not teach or fairly suggest measured values of a said solution to be detected are corrected by the measured values of the said standard solution to be determine the concentration of said specific component in said solution to be detected.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



February 17, 2004

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700